



## DISABILITY AND COMMUNICATION ACCESS BOARD

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### INTERPRETIVE OPINION

Pursuant to §103-50, Hawaii Revised Statutes (HRS), all buildings and facilities constructed by, or on behalf of the State or any county, shall conform to the Americans with Disabilities Act Accessibility Guidelines (ADAAG) and amendments. In accordance to HRS §103-50 and Chapter 11-217, Hawaii Administrative Rules, the Disability and Communication Access Board has authority to issue interpretive opinions to HRS §103-50 design standards.

**Docket:** **DCAB 2001-02:** Interpretive Opinion on ADAAG 4.7.2, Curb Ramp Slopes, requesting to change the 1:20 (5%) gutter or road counter slope (slope adjacent or counter to the curb ramp or ramp landing) to be a maximum of 8.33% for curb ramps with running slopes that do not exceed 1:20 (5%). This would be allowed only at ramps with 1:48 (2%) landings, or at medians cut through with a 1:20 (5%) max. slope.

**Summary:** The U.S. Department of Transportation (DOT), Federal Highway Administration, defines “rate of change of grade” as the “change in grade over a given distance.” Using 2’-0” intervals, that approximate a single walking pace and a wheelchair wheelbase, 13% maximum should not compromise the ground clearance of footrests and/or the anti-tip wheels of wheelchairs. Gutters with a 5% “counter slope grade” opposite to the curb ramp’s general running grade of 8.33% would therefore still be usable with a 13% maximum rate of change.

ADAAG requires 5% maximum for adjacent gutter slopes. The proposed rate of change of grade is 11% maximum by the still “proposed and not yet adopted” federal Public Rights of Way Accessibility Guidelines (PROWAG). The State of Hawaii, Department of Transportation curb ramp types A and D require a 5% adjoining gutter since they have 8.33% ramps (13%). Types B, B modified, C, C modified, and E all have 2% landings that with an 8.33% gutter, have a 10% combined slope, acceptable by both the Federal and State requirements. The State DOT’s standards state that the counter slope may be exceeded when the change of grade does not exceed 13% (11% preferred) over a distance of 2’-0”. Exceeding the 13% (11% preferred) change in grade will cause a person in a wheelchair to tip forward and/or fall backward.

**Ruling:** For buildings or facilities subject to HRS § 103-50,

#### **ADAAG 4.7.2, Curb Ramp Slopes**

Where curb ramps have running slopes that do not exceed 1:20 (5%), the adjacent gutter or road counter slope may be a maximum of 8.33%. This is allowed only at ramps with 1:48 (2%) landings, or at medians cut through and ramps with a 1:20 (5%) maximum slope.

[Rul: 01/01] (Auth and Imp: HRS §103-50)

If you have any questions or comments regarding this ruling, please call us at 586-8121.

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